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ABSTRACT

This report presents evaluations of the supplementary programs at Austin T. Walden Middle School, partially funded under Title I of the 1965 Elementary Secondary Education Act. The Instructional Assistance Program had such goals as: to develop lasting materials that provide a more integrated learning experience for the pupil from the inner city; to develop within the pupil an appreciation of learning and school; to create some situation/experiences which led the pupil to make appropriate decisions; and others. The Career Opportunities Program is a teacher training program. The Title I program provided appropriate and meaningful learning experiences consistent with the performance of pupils as determined by data derived from teacher evaluation, and standard and informal diagnostic instruments. The purpose of the Teacher Corps Program at Walden was to train an instructional team to use competencybased education in the inner-city schools by planning and executing activities according to pupils' needs. Also, the Teacher Corps team sponsored community activities and made the pupils' learning experiences more relevant to the community. The Program for Education and Career Exploration is a guidance program that provided experiences for second and/or third year pupils that will enable them to make realistic educational and career choices at future major decision points. (Author/JM)

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RESEARCH AND DEVELOPMENT REPORT

Vol. VI, No. 30 April, 1973

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1971--72

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I. INTRODUCTION

The Austin T. Walden Middle School was named for Judge Austin T. Walden. Judge Walden held offices of great importance including Board President of the Butler Street YMCA, co-chairman of the Atlanta Summit Leadership Conference, Associate Judge in the Atlanta Municipal and Traffic Courts, and was appointed as a member of the American Battle Monuments Commission by President John F. Kennedy in September, 1961. The many other honors that were bestowed upon Judge Walden would make a long list; therefore, his social, political, and civic contributions should serve as an inspiration to the pupils and faculty of Walden Middle School.

II. RATIONALE

The site for Austin T. Walden Middle School was selected for use by the Atlanta Public Schools in cooperation with the City Planning Department during the early stages of the Butler Urban Renewal Area. The other schools in the immediate area were crowded and the new Wheat Street Garden Apartments promised to increase their enrollments.

Groundbreaking for Walden took place on August 22, 1969, and the school was completed on December 16, 1970. Consequently, the first group of pupils occupied Walden on March 23, 1971.

The basic philosophy of Walden Middle School is that the school is for children, and childcenteredness should guide all decisions. Therefore, Walden Middle School attempts to meet the needs of the child, as he emerges from childhood to adolescence, by providing experiences and counseling in a threat-free, success oriented, nongraded organization.

The nongraded concept was executed at Walden Middle School. In other words, when the pupils (who would be classified as sixth grade pupils in some schools) enter Walden School, they are designated as first year pupils. The pupils often classified as seventh grade pupils are designated as second year pupils, and the eighth grade pupils are third year pupils. They are designated in this manner because the middle school program is a three year program which allows pupils to progress according to their needs, interests, and abilities.

In keeping with this philosophy, it was decided by the principal and faculty of Walden Middle School that the 1971-72 school year should provide a progressive educational program for the pupils. Also, it was decided that the reading and mathematics programs, in conjunction with the special services provided by programs in the school, should receive the most emphasis for the year.

Supporting Services

The regular budget of the Atlanta Public Schools, federal and state assistance, and community services provided the following resources for the instructional program at A. T. Walden Middle School:

A. Instructional Assistance Program (IAP)

A team consisting of a lead teacher (project assistant), a communication skills teacher, a social studies teacher, a foreign language teacher, a French speaking assistant teacher, a Spanish speaking assistant teacher, and a typist worked under the leadership of the Coordinator of Foreign Languages to develop and perfect multi-media learning activity packets designed around a core curriculum.

The focus of the Instructional Assistance Program (IAP) for the first year was to accomplish the following: (1) develop lasting materials that provide a more integrated learning experience for the pupil from the inner-city, (2) provide, for the pupil, insight into his own language by introducing him to another culture and its language, (3) develop within the pupil an appreciation of learning and school, (4) develop within the pupil a healthy self-attitude, provide opportunities for successful learning experiences, (5) create some situation/experiences which led the pupil to make appropriate decisions, and (6) find ways of effectively using audio-visual equipment for individual learning experiences.

B. Career Opportunities Program (COP)

The Spanish speaking assistant teacher in the Instructional Assistance Program (IAP) was a participant in the Career Opportunities Program (COP). The Career Opportunities Program (COP) is a training program, and its participants are enrolled in accredited college courses leading toward professional certification.

C. Title I Program

Since 58.7 per cent of the pupils enrolled in Walden were from families whose incomes are $2,000 or less, it qualified as a Title I school. Through the Title I Program, a lead teacher, music-laboratory and library aide, an attendance aide, and two instructional aides worked with the first, second, and third year pupils to improve the instructional program with emphasis on reading and mathematics.

The program provided appropriate and meaningful learning experiences consistent with the performance of pupils as determined by data derived from teacher evaluation, and standard and informal diagnostic instruments. The effective utilization of multi-faceted and multi-sensory approaches to learning was an important part of the program. In addition, the Title I personnel worked towards helping the pupil achieve self-understanding and the understanding of others through guidance methods and techniques incorporated in the instructional program.

D. Teacher Corps

The Teacher Corps Program at Walden provided a lead teacher, four senior teachers, and six paraprofessionals who were college seniors, to work with first year pupils. The purpose of the program was to train an instructional team to use competency-based education in the inner-city schools by planning and executing activities according to pupils' needs. Also, the Teacher Corps team sponsored community activities and made the pupils' learning experiences more relevant to the community.

Through the Teacher Corps Program, a Parent Volunteer Corpsmen project was initiated as a part of community involvement. The volunteer corpsmen assisted a teacher or teachers in working with children, either in groups or individually, and in executing tasks which supported the teaching act. The tasks performed by corpsmen were duties that were geared toward professional training and were performed under the direct supervision of a teacher.

E. The Program for Education and Career Exploration (PECE)

The Program for Education and Career Exploration (PECE) is a guidance program that provided experiences for second and/or third year pupils that will enable them to make realistic educational and career choices at future major decision points.

F. General Funds

A counselor assisted both the teachers and pupils. The counselor provided services in the following areas: (1) counseling, (2) individual pupil inventory, (3) orientation, (4) evaluation, (5) research, and (6) record keeping.

III. NEEDS OF THE PUPILS

The cooperative efforts of all personnel involved in the programs at Walden were essential in meeting the needs of the pupils; therefore, personnel of the different programs was asked to assist in determining the needs of the pupils in order to plan an improved instructional program. It was ascertained that the pupils needed the following:

A. A more flexible, individualized instructional program.

B. Improvement in attitudes and values toward school, self, and others.

C. Development of greater independence in work habits.

D. Improvement in reading and mathematics skills.

E. Development of more appreciation for their own worth in the community in which they live.

F. Development of an appreciation for cultures different from their own.

G. Development of an awareness to and ability to imitate the sounds of a foreign language.

H. Development of a greater respect for physical facilities and the care of them.

I. Development of greater proficiency in all communication skills.

IV GOALS OF THE PROGRAM

The following goals were formulated by the personnel in the program at W[illegible] Middle School:

A. To provide appropriate and meaningful learning experiences consistent with pupil performance.

B. To utilize multi-faceted and multi-sensory approaches to learning.

C. To guide the pupil to achieve self-understanding and an understanding of others.

D. To provide proficient ways for improvement by the pupils in communication skills.

E. To provide a concentrated reading and mathematics program.

F. To provide opportunities for successful learning experiences.

G. To guide the pupil to appreciate cultures different from his own.

H. To provide opportunities to study a foreign language.

V. OBJECTIVES

The objectives for an improved instructional program as formulated by the principal and staff included the following:

A. The pupils will exhibit an improvement in attitude observed by the teachers.

B. Given the Metropolitan Achievement Tests (MAT), the first, second and third year pupils will show a month's gain for a month in the program in reading and mathematics.

C. Given a criterion-referenced test on social studies' concepts, the pupils in the Instructional Assistance Program (IAP) experimental group will show statistically greater significant gains when compared with pupils in a control group.

D. Given the Stanford Diagnostic Reading Test, the pupils in the Instructional Assistance Program (IAP) experimental group will gain significantly more than the control group.

E. The pupils who are instructed by the Title I team and reading below third grade level, will increase their reading levels by at least one and a half to two grade levels as determined by informal and formal reading inventories.

F. The Teacher Corps team will strengthen the educational opportunities for children from low socio-economic backgrounds by developing curricula and materials more appropriate to the needs and interests of pupils.

G. The Teacher Corps team will incorporate into the elementary program the individualization process which interns will use in teaching pupils as they field test new curriculum.

H. In the Program for Education and Career Exploration (PECE), the pupils will accomplish the following:

1. Begin to recognize and identify characteristics about himself that will help him to realize his full life's potential.

2. Understand the educational requirements for the various career clusters.

3. Develop abilities in making realistic decisions about future education and career plans.

VI. VARIABLES

The variables to be treated in the program were:

A. Achievement

1. In reading
2. In mathematics
3. In social studies' concepts (IAP).

B. Attitude

1. Toward self
2. Toward school
3. Toward other people.

C. Community involvement

D. Career Opportunities.

VII. MANAGEMENT AND CONTROL

Many people had important roles in the instructional program at Walden Middle School. Among many tasks, the principal helped to identify the special instructional needs of pupils and professional needs of the staff. The principal, also, planned cooperatively with the staff to design a program that promoted the total growth of pupils and the professional growth of the staff members. The assistant principal, as the name implies, assisted the principal. One of his roles was that of dealing with discipline problems.

Others who worked more directly with instructing pupils included the Area III resource teachers, the lead teachers, the teachers, a counselor, and paraprofessionals. The resource teachers assisted with the program as needed. The lead teachers served in their designated roles of leadership for implementing the instructional program in the school. Each lead teacher performed duties towards the accomplishment of objectives specified for the total school program.

In the classrooms, the teachers diagnosed the needs of pupils and planned programs and activities in order to meet the special needs of the pupils. They implemented these plans through the instructional program.

The educational aides assisted the teachers according to the specific program in which they were working. For example, in the Title I Program, there was a music-laboratory and library aide, and attendance aide, and an instructional aide.

VIII. PROCESS

In order to accomplish the stated objectives, the pupils were involved in the following activities:

Instructional Assistance Program (IAP)

The Instructional Assistance Program (IAP) team at Walden Middle School spent September, 1971, through December, 1971, refining objectives; exploring strategies; getting acquainted with the school, the children, and one another; learning the potentials of the great variety of media bought for use in the project; and trying out individual activities with children.

The purpose of the Instructional Assistance Program at Walden Middle School was to develop an instructional model, which offered the pupil options of what and how he learns; placed emphasis on success experiences and improved self-concept; represented extensive interdisciplinary team planning in preparation of materials; and included guides to team planning and the use of paraprofessionals in implementation of the model.

The component parts included preliminary inservice modules for teachers and paraprofessionals; a teacher packet for each unit; and pupils' learning activity packets for the core curriculum. Also, there were optional skill development packets in Spanish and French for pupils who chose one of these languages as an exploration area. In each component, the modules or packets were accompanied by multi-media presentations.

At Walden Middle School, the title for the Instructional Assistance Program (IAP), Dynamics and Influences of Culture and Environment Project, (DICEP) stemmed from the belief that curriculum for the "between" years (of emergence from childhood to adolescence) should focus on helping the individual to understand himself, help him learn to interact dynamically with his environment, and to relate what can be perceived in the immediate environment to a level of making hypotheses and dealing with abstractions.

Through the content presented in the social studies series, the pupil moved from his own environment, observing, comparing, and contrasting cultures different from his own through a framework of concepts and values. Also, language arts was interwoven with the social studies, and dealt with the same content with objectives reflecting goals of communication skills improvement.

Some French and Spanish were introduced in core packets to reinforce understanding of the pupil's native tongue, to give him insight into language as an important aspect of culture, and to give a basis for making an informed decision as to whether he has interest in and aptitude for foreign language study.

Though the function of the DICEP team was to develop learning activities, they worked to help assure realistic curriculum for children. The school supplied one teacher to the project and in exchange, the project contributed the equivalent time of one teacher to regular school duties with each team member participating. There were 112 pupils in a three hour basic-skills-block each day. In this pod where DICEP packets were tested, the three regular teachers also were giving feedback and suggestions which were incorporated into revision.

Starting with broader educational goals, specific objectives were formulated. The learning activity packet was designed to allow the pupil to work at his own pace and interest level. A rationale helped the pupil understand a reason for the learning experience and the behavioral objectives informed him as to exactly what was expected of him. The packet described a variety of activities from which the pupil selected the ones which best fitted his achievement level, style of learning, and interests.

Through the learning activity packets, the pupils were directed in their learning experiences by the printed word, by recordings, and through the assistance of other pupils. Because this freed the teacher much of the time from the usual role of directing activities in the classroom, he had time to give guidance and help to individual pupils.

In the teacher's packet were suggestions for classroom management, emphasis on flexible grouping, group options for change-of-pace activities, and suggestions for team cooperation in implementation of this model. In the development of materials, extensive interdisciplinary team planning played an important role.

The content and approach were based on The Social Sciences: Concepts and Values (Harcourt, Brace and Jovanovich, Inc.), Level 5 textbook. The pupil was shown how cultural components, as they appear in different forms, were related in all cultures. Experiences such as a walking tour to the capitol and a trip to the airport were utilized for examining the pupil's community. This developed a basis for comparison with other cultures.

Since communication skills seem to have more meaning for the pupil when he can see them as useful in everyday life and as an integral part of all of his work in school, activities to develop listening, speaking, reading and writing skills centered around the social studies content. The emphasis on English was on acquisition of formal language, discrimination of informal language, and consideration of appropriate uses for each.

A variety of machines and activities helped make it possible to give the child several options for arriving at objectives. For example, a child may have met an objective for writing through a "Finish the Story" or through a letter writing activity. Also, he may have demonstrated an understanding of certain words by using an audio flashcard machine for practice and later recording correct responses without using the cards; or he may have used a filmstrip to learn certain facts and demonstrated his ability to use the facts by matching a set of pictures.

To check comprehension and vocabulary development, the pupil may have completed a worksheet which was related to social studies, worked with the dictionary, or played a special game of cards. No matter what the objective may have been, the pupil was always given at least two options for meeting the objective.

Foreign language phrases were introduced to strengthen English skills. In one packet, differences between formal English and the language the pupil might use informally were compared with similar differences between the same phrase in Spanish and French.

Some pupils, after their initial experience in the core packet, could choose to elect skill development in a foreign language. For their use, separate sets of French and Spanish packets were developed.

To provide individualized instruction for the pupil was the goal of the project throughout the period of planning, developing, implementing, and revising. It has been observed:

A. That pupils have developed greater independence in work habits.

B. That they have developed a more responsible attitude toward their own role in a learning situation and greater respect for physical facilities and the care of them.

C. That they have developed an awareness to and acceptance of cultures different from their own through understanding of some basic concepts and values.

D. That they have developed insight into their own language by being introduced to other languages.

E. That they have developed greater achievement in the communication skills -- listening, speaking, reading, and writing.

F. But perhaps most important, it is believed that they have developed a more positive self-image.

Title I

The Title I Program provided a lead teacher, a music-laboratory aide, a library aide, an attendance aide, and two instructional aides. Each person had a very definite role in the total program.

One of the duties of the lead teacher was to work toward the promotion of the total growth of pupils and the professional growth of teachers and staff. Additionally, the lead teacher led in implementing and evaluating programs designed for pupils and teachers and demonstrated various techniques for teaching reading.

The music-laboratory and library aide assisted in the media center and in the music laboratory. The music activity was designed as a tool whereby pupils with restricted backgrounds who have realized little success in the past may develop positive attitudes toward self-improvement. In addition, it was believed that this activity would improve the pupils' attitudes toward other subjects such as reading and mathematics.

The attendance aide identified chronic absentee problems and assisted teachers in making referrals to the social worker. In addition, the aide worked with the social worker to determine reasons for absenteeism and determined what the school could do to meet the needs. Also, the aide communicated with the home through visits and/or phone conferences concerning absences.

To implement specific reading plans developed by the teachers, the two instructional aides assisted with clerical work to free teachers for instructing pupils. They duplicated materials, assisted with record keeping, operated audio-visual equipment and the like.

Behavior modification through the use of reinforcements was used with pupils. (The pupils were allowed to participate in the music laboratory as a reward for meeting instructional objectives mutually set by the teacher and the pupils.) Also, the following were used with pupils: (1) utilization of a learning skills center such as the reading comprehension center, (2) an individual approach for using reading laboratories and programmed materials, (3) a multi-media approach to reading including trade books and other instructional materials, (4) excursions, exploration, dramatizations, creative writing, community resources and the integration of these activities to develop communication skills.

Teacher Corps

The Teacher Corps team, consisting of a lead teacher, four senior teachers and six paraprofessionals provided many learning experiences for children. These activities were scheduled according to the pupils' needs. The needs were discussed daily in terms of the strengths and weaknesses of the pupils. To meet the needs, the schedule was flexible with a greater percentage of the time devoted to reading instruction. Some of the activities provided by the Teacher Corps Team were the following: (1) more individualized instruction, (2) activities to improve reading skills, and (3) activities to improve self-image and self-concept.

As previously mentioned, the Teacher Corps Program initiated a Parent Volunteer Corpsmen project with a small renumeration as a part of community involvement in 1972. The corpsmen were employed to reduce teacher loads by assisting her/him with some of her/his duties. For example, a corpsman assisted a teacher or teachers with teaching language arts, social studies, arithmetic, science, health, and the like, assisted with clerical tasks; operated various audio-visual equipment, and assisted with general tasks designated by the teacher. While assisting in the schools, the six Teacher Corps paraprofessionals were involved in regular academic course work for a degree. To broaden their experiences the Teacher Corps members visited, and observed, other instructional teams in the system. Also, the team constantly evaluated themselves and the effectiveness of their teaching.

Program for Education and Career Exploration (PECE)

The Program for Education and Career Exploration (PECE) at Walden Middle School provided two language arts teachers, one social studies teacher, and a lead teacher to coordinate the activities. As a part of the program, the pupils at Walden made trips to various businesses to learn what was actually involved in the operation of each business and to help in their decision for a career.

Implementation of The Total School Program

In order to implement the total school program, the following procedures were practiced:

A. After teachers had tested and diagnosed pupils, each pupil was given basal reader programmed reading and other materials on his level in order to experience success.

B. For grouping, the nongraded concept was implemented.

C. A master schedule was set by the principal, administrative council and by teams of teachers in cooperative planning.

D. Through cooperative planning, team activities were scheduled.

E. School-wide activities were scheduled through the office and announced in the weekly bulletin.

F. All out-of-school activities were cleared through the principal.

IX. INSERVICE TRAINING

Inservice training was an integral part of the instructional program. The training at Walden included the following:

A. Involving the staff in developing proficiency in group counseling techniques.

B. Learning to teach reading skills through various methods.

C. Discussing classroom management.

D. Investigating the design for executing the nongraded concept and team teaching in the open classroom.

X. SUPPLIES

The availability and distribution of supplies are of major importance in implementing a program. At Walden, the supplies were managed in the following ways:

A. Availability

1. There was an allocation of funds for each department, and as a department, they ordered supplies.

2. Books, workbooks, and the like were requested from the lead teachers who kept an inventory record of all materials.

B. Distribution

1. Distribution of books and materials was made by the lead teacher.

2. Distribution of materials and games was made by the department chairman.

3. Distribution of larger equipment and materials not received through the supply catalog, was made by the Assistant Principal.

XII. EVALUATION

For purposes of evaluation, the following instruments were used:

A. The Metropolitan Achievement Tests (MAT) was administered to first and second year pupils as pretest and posttest to determine the gains made in reading and mathematics.

B. A criterion-referenced test on social studies' concepts was given to the pupils in the Instructional Assistance Program (IAP) and to a control group for a comparison of gains.

C. A randomly selected group of first and second year pupils in the Instructional Assistance Program (IAP) was given the School Sentiment Index (SSI) and the Self-Appraisal Inventory (SAI) to measure attitudes and self-concept.

D. The Stanford Diagnostic Reading Test was administered to the Instructional Assistance Program (IAP) experimental and control groups in order to compare reading gains.

E. The Title I pupils were given formal and informal reading inventories.

F. The Newman Analysis, the Stanford Diagnostic Reading Tests (Forms I and II), and a Teacher-Made Informal Reading Inventory were administered to the pupils taught by the Teacher Corps team.

XIII. FINDINGS

To ascertain whether or not the pupils met the stated objectives, each objective (or pair of objectives) will be treated separately.

Objective A

Did the pupils exhibit an improvement in attitude as observed by the teachers?

From talks with teachers, the research assistant learned that the teachers believed that the pupils had greatly improved their attitudes toward school, toward self, and toward others. These

opinions were based on the teachers' observations as they had worked with the pupils in the instructional program throughout the school year. For example, near the end of the school year the pupils were more easily settled for work. As a matter of fact, in many instances the pupils began work on their individual assignments, which they understood, without having to be told. Therefore, there were many indications that Objective A had been met.

Additionally, for the purpose of determining the self-concept and attitudes of the pupils in the Instructional Assistance Program (IAP), the Self-Appraisal Inventory (SAI) and the School Sentiment Index (SSI) were administered. A random sample of forty-three first and second year pupils was used for securing data.

According to the Self-Appraisal Inventory (SAI) the different dimensions of the learner's self-concept are:

1. Family, i.e., one's self-esteem yielded from family interactions;

2. Peer, i.e., one's self-esteem associated with peer relations;

3. Scholastic, i.e., one's self-esteem derived from success or failure in scholastic endeavors;

4. General, i.e., a comprehensive estimate of how the self is esteemed.

According to the School Sentiment Index (SSI) the six dimensions of the learner's attitude toward schooling are:

1. Teachers, i.e., one's subjective feelings about teacher behavior with respect to instruction, authority and control, and inter-personal relationships with pupils;

2. School Subjects, i.e., one's differential attitudes toward various commonly-taught school subjects;

3. Learning, i.e., one's attitude toward the learning experience, independent of attitude toward school, teachers and subjects, as reflected in intellectual curiosity, willingness to study, interest in problem solving, etc.;

4. School Social Structure and Climate, i.e., one's attitude toward his school as a social center, a rule making and rule enforcing entity, and an extra curriculum opportunity system;

5. Peer, i.e., one's feelings regarding the structure of, and climate of relationships within the peer group;

6. General, i.e., one's general orientation toward schooling, independent of a particular school.

The results of the intermediate level SAI for first and second year pupils were as follows:

	N	Peer	Family	School	General	School Total
Walden Middle School	43	0.70	0.76	0.72	0.74	0.73

The results of the intermediate level of the SSI for first and second year pupils were as follows:

	N	Peer	Teacher	General	School Climate	Learning	School Total
Walden Middle School	43	0.63	0.61	0.69	0.60	0.67	0.62

Since the maximum response was 100 per cent, it can be seen that Walden Middle School did not approach this score; however, the majority of responses were well above 50 per cent. Also, it can be seen that the pupils were more positive on the Self-Appraisal Inventory (SAI) than on the School Sentiment Index (SSI).

Objective B

Did the first, second, and third year pupils show a month's gain for each month in the program in reading and mathematics?

The first and second year pupils were given the Metropolitan Achievement Tests (MAT). The results in Table 1 show that the pupils who took both the pretest and posttest did not make a gain of a month for each month in the program, in either reading or arithmetic. In fact, the first year pupils only gained approximately two months in reading and less than a month in both arithmetic subtests. The second year pupils made gains of approximately four months in reading and two months on each of the arithmetic subtests. Thus, Objective B was not met for the majority of pupils at Walden.

TABLE 1

GAINS MADE ON THE METROPOLITAN ACHIEVEMENT TESTS
PRETEST AND POSTTEST (FIRST AND SECOND YEAR PUPILS)

Subtest	Pretest	Posttest	Gain	Rate of Gain (Per Cent)
First Year				
Reading	3.84	4.07	0.24	38.3
Arithmetic Computation	4.89	4.91	0.02	3.2
Arithmetic Problem Solving	4.53	4.60	0.08	12.3
Second Year				
Reading	4.15	4.59	0.44	70.8
Arithmetic Computation	5.43	5.62	0.19	31.2
Arithmetic Problem Solving	5.18	5.42	0.24	38.6

The Division of Research and Development conducted a study, using the Metropolitan Achievement Tests (MAT) scores, also, of effectiveness and acceptability of the reading program in 1970-71 and the reading and arithmetic programs in 1971-72. The findings for 1970-71 for each elementary school were printed in a publication entitled, Effective? Acceptable?. The middle schools were not represented in the publication; however, comparable data was analyzed to show the actual and predicted gains, the gain rate of effectiveness and acceptability in reading and in mathematics at Walden Middle School. Since Walden Middle School began operating for the 1971-72 school year, results of the analyses for one year are shown in Table 2.

The gain rate of effectiveness and level of acceptability were based on the following six factors which influence pupil achievement: entry knowledge of pupils, economic level of families, attendance of pupils, class size, stability of school enrollment and extent of pupil failure. The predicted gain for the sixth and seventh grades was less than the expected gain of six months (or more) between the pretest and posttest. In other words, after considering the six influencing factors present in the school, the gains that were predicted were less than the acceptable gain of one month for one month of instruction. The data which is based on the six factors previously named and gives median scores, differs from that presented in Table 1 which did not consider the six factors and were mean scores; however, the results are similar. The actual scores in reading and mathematics were less than the predicted scores in both sixth and seventh grades.

According to the data, the programs in reading and mathematics were neither effective nor acceptable in Walden Middle School. Thus, every attempt should be made to analyze the strengths and weaknesses of the program, and the staff members should vigorously pursue the goal of strengthening the effectiveness of the program and in turn raise the level of acceptability.

Although the eighth grade pupils, or third year pupils were not measured on the Metropolitan Achievement Tests (MAT), the principal and faculty worked towards a better instructional program for all of the children. The results of the Iowa Test of Basic Skills (ITBS) which was administered only once to the third year pupils during the 1971-72 school year showed that the two-hundred twenty three pupils who took the reading test averaged 5.1 (fifth grade one month). The two hundred eighteen pupils who took the mathematics test averaged 5.7 (fifth grade seventh month). These figures will be used for comparison for 1972-73 school year.

TABLE 2

EFFECTIVENESS AND ACCEPTABILITY OF PUPIL PERFORMANCE ON THE READING SUBTEST OF THE METROPOLITAN ACHIEVEMENT TESTS
1971-72

Grade	Actual		Gain		Gain Rate of Effectiveness	Index of Acceptability
	Pretest	Posttest	Actual	Predicted		
6	3.6	3.7	0.1	0.3	33	55
7	3.9	4.1	0.2	0.3	67	53
			Average		50	54

Objective C

Did the experimental group in the Instructional Assistance Program (IAP) show significant gains when compared with a control group?

The criterion-referenced test was designed to compare the ability between an experimental group (Team II) and a control group (Team V) in transferring social studies skills which had been taught during the period from January 4 to May 30, 1972. The test was written to see how well pupils could observe, compare, contrast, analyze, synthesize, and evaluate a totally new culture in relation to concepts they learned while studying other cultures during the year.

Both teams had used materials which were based on The Social Sciences: Concepts and Values (Harcourt, Brace, and Jovanovich, Inc.), Level 5 textbook. The Dynamics and Influences of Culture and Environment Project (DICEP) team used individual learning activity packets which allowed pupils options for learning through multi-media presentations. The control team (Team V) was presented the same content but in a classroom situation using traditional methods and materials.

The test consisted of the following:

A. A slide-tape presentation of a culture (Israelites) about which the experimental and the control group had very limited information.

   1. Three questions were asked to test the ability of pupils to listen attentively and respond to general information presented in the narration regarding group organization, family life, and beliefs. (Observing, analyzing, and synthesizing.)

   2. Pupils were asked to identify the five cultural components listed along with numerous cultural forms.

B. Questions were presented which asked the pupils to associate certain symbols with meaning concerning the physical environment of the Hopi, Eskimo, and Kpelle. (Analyzing.)

C. True-false questions were used to test the pupil's ability to recall pertinent facts about the Hopi, Eskimo, and Kpelle cultures. (Knowledge of facts.)

D. Two definitions with possible answers were presented to help pupils show their understanding of the terms "culture" and "cultural forms."

E. Questions were asked to allow pupils to compare and contrast cultural components of the Hopi, Eskimo, and Kpelle. (Compare and contrast.) (Appreciation.)

Both testing situations were excellent. The test was presented by tape and each team finished within an hour's time. Additional teachers from both teams were present during the testing sessions. Since the better achieving pupils were chosen from both the DICEP team and the control team there was no attempt made to control the variables of intelligence or sex.

There were 22 pupils in the experimental group and 27 pupils in the control group. First, a t test was done to test for significant differences between Intelligence Quotients (IQ) in the two groups. The results of the test proved that the experimental group had IQs that were significantly higher at the .01 level. Second, a test for correlation between the test scores and IQs was run, and a high correlation between test scores and IQs was found. Third, an analysis of covariance, a method of statistical control, was used to eliminate the effect of IQ on the test scores. It was found that the experimental group did significantly better at the .01 level. Thus, the effects of teaching with multi-media packets versus the textbook method were tested, and the group using the packets proved more successful at Walden Middle School, therefore, Objective C was met.

Objective D

Did the pupils in the Instructional Assistance Program (IAP) experimental group gain significantly more than the control group on the Stanford Diagnostic Reading Test?

The Stanford Diagnostic Reading Test, Level 1, was administered as a pretest to all the experimental and control pupils in the Instructional Assistance Program at Walden Middle School. After analyses of the data, a pupil profile was drawn for each pupil, and the profile proved to be a valuable diagnostic tool for the teachers. It could be seen how performance on each subtest related to performance on other subtests and how each contributed to the total reading process. However, the test was used only as a helpful diagnostic measure and the posttest was not given for it was not believed practical to use it for determining gains; therefore, Objective D was not tested.

Objective E

Did the pupils who were instructed by the Title I team and reading below third grade level increase their reading levels by at least one and one-half to two grade levels?

The Title I pupils were given numerous informal and formal reading inventories. It was found in working with the pupils at Walden during the first year, in a new school setting, Objective E was a very unrealistic objective; therefore, it was not possible to meet the objective.

Objectives F and G

Did the Teacher Corps team strengthen the educational opportunities for children and incorporate into the school program the individualization process?

During the first year at Walden, the Teacher Corps team developed materials, such as games, to reinforce basic skills appropriate to the needs and interests of the pupils. Additionally, the team members set up eight resource centers for the pupils and purchased materials for individualized instruction. Thus, the available materials for pupils and observations of the use of the materials for individualized instruction provided indications that Objectives F and G were met.

Objective H

Did the pupil at Walden Middle School through the Program for Education and Career Exploration (PECE) begin to recognize and identify characteristics about himself that would help him to realize his full life's potential; understand the requirements for the various career clusters; and develop abilities in making realistic decisions about future education and career plans?

Since this objective was one that only could be measured by observations, the research assistant visited the school and talked with school personnel. It was found that the pupils did take trips to various businesses (as stated previously); however, the trips were not well organized and the pupils seemingly gained very little from their experience. Also, PECE promotes the practice of pupils working for specified periods of time in the various businesses to gain knowledge about occupations. It was found that no pupils worked as a part of the program at Walden Middle School. Thus, based upon the information obtained by the research assistant, PECE was not successful in meeting its objectives for the first year at Walden Middle School.

XIV. COST ANALYSIS

In order to determine the cost for the amount of gain made in grades six through eight, a cost analysis of reading gains was made. The data in Table 3 show the total school (6 - 8) Average Daily Attendance (ADA), the ADA by grade, and the ADA for the pretest population for which gains were computed.

The expenditures have been separated into sections entitled (1) general funds (salary and non-salary) and (2) compensatory funds (salary and non-salary). The cost for food services, new equipment, or capital outlay is not included. The figures were computed from the June 30, 1972, General Funds Financial Report and the June 30, 1971, Trust and Agency Report. Included, also, in the cost are compensatory funds for each unit of effectiveness as determined in the Effectiveness, Acceptability Study, 1971-72. The figures pertaining to per pupil cost are broad estimates and are not exact or finite.

In allocating general funds for salaries and non-salaries, the per cent of each grade's pretest/posttest ADA of the total population was considered. The funds for non-salary include the cost for materials and supplies, and replacement and/or repair of old equipment.

According to these data, there was no relation between the amount of funds spent and the cost for a one-grade-unit of gain. In the sixth grade where the pupils actually gained less than the seventh grade pupils, the cost for a unit of gain was approximately twice that for the seventh grade.

There, also, appeared to be no relation between the amount of compensatory funds spent and the effectiveness of the reading program. The cost per unit of effectiveness was much greater for the sixth grade which had a less effective reading program than the seventh grade.

TABLE 3

COST ANALYSIS OF READING GAINS BY GRADES
ADA = 739

	Grades			
	Sixth	Seventh	Eighth	Average
ADA for Grade	240	266	233	
Per Pupil Cost				
A. General Funds				
1. Regular				
a. Salary	$ 765.15	$ 765.15	$765.15	$765.15
b. Non-Salary	114.88	114.88	114.88	114.88
c. Total	$ 880.03	$ 880.03	$880.03	$880.03
2. Comprehensive Instructional Program (CIP) Salary	$ 0.24	$ 0.24	$ 0.24	$ 0.24
3. Total General Funds				
a. Salary	$ 765.39	$ 765.39	$765.39	$765.39
b. Non-Salary	114.88	114.88	114.88	114.88
c. Total	$ 880.27	$ 880.27	$880.27	$880.27
B. Compensatory Funds				
1. National Teacher Corps				
a. Salary	$ 136.57	-0-	-0-	$ 45.52
b. Non-Salary	1.59	-0-	-0-	0.53
c. Total	$ 138.16	-0-	-0-	$ 46.05
2. Emergency School Assistance Program (ESAP)				
a. Salary	$ 0.74	$ 0.74	$ 0.74	$ 0.74
b. Non-Salary	0.63	0.63	0.63	0.63
c. Total	$ 1.37	$ 1.37	$ 1.37	$ 1.37
3. Title IV-A				
a. Salary	$ 15.31	$ 15.31	$ 15.31	$ 15.31
b. Non-Salary	0.08	0.08	0.08	0.08
c. Total	$ 15.39	$ 15.39	$ 15.39	$ 15.39
4. Title I				
a. Salary	$ 30.25	$ 30.25	$ 30.25	$ 30.25
b. Non-Salary	5.88	5.88	5.88	5.88
c. Total	$ 36.13	$ 36.13	$ 36.13	$ 36.13
5. Career Opportunities Program (COP) Salary	$ 0.81	$ 0.81	$ 0.81	$ 0.81

TABLE 3 (Cont'd)

	Grades			
	Sixth	Seventh	Eighth	Average
6. Total Compensatory Funds				
a. Salary	$ 183.68	$ 47.11	$ 47.11	$ 92.63
b. Non-Salary	8.18	6.59	6.59	7.12
c. Total	$ 191.86	$ 53.70	$ 53.70	$ 99.75
C. Total Per Pupil Cost				
1. General Funds	$ 880.27	$ 880.27	$880.27	$880.27
2. Compensatory Funds	191.86	53.70	53.70	99.75
3. Total Per Pupil Cost	$1,072.13	$ 933.97	$933.97	$980.02
D. Rate of Reading Gain	.38	.71	-	-
E. Projected Cost For One-Grade-Unit Gain				
1. General Funds	$2,316.50	$1,239.82	$ -0-	$ -0-
2. Compensatory Funds	504.90	75.63	-0-	-0-
3. Total Projected Cost	$2,821.40	$1,315.45	$ -0-	$ -0-
F. Gain Rate of Effectiveness	33	67	-	-
G. Expenditure of Compensatory Funds For Each Unit of Effectiveness	$ 5.81	$ 0.80	$ -0-	$ -0-

XV. CONCLUSIONS

According to the principal and faculty at Walden Middle School, it was generally believed by the instructional team that much had been gained by working together for the improvement of instruction. For instance, for the most part, there had been cooperative planning, frequent collaboration, and unrestrained communication. In addition, the team members had learned how to use various materials and instructional aids and had become aware of their responsibilities in diagnosing and individualizing instruction.

In addition, from the data collected on Walden Middle School, there were indications of the following:

A. Only one-half of the objectives were met during the first year of Walden Middle School's operation.

B. The pupils in grades six and seven (levels one and two) did not make a month's gain for each month in the reading and mathematics programs.

C. As previously stated, the objective of increasing the reading level by at least one and one-half to two grade levels was unrealistic.

D. Since Walden Middle School was a new school, there were some organizational problems which may have limited the effectiveness of the instructional program throughout the school.

E. There was a management problem in connection with the Program for Education and Career Exploration (PECE).

F. The pupils did exhibit an improvement in attitude as observed by the teachers.

G. The pupils in the Instructional Assistance Program, called Dynamics and Influences of Culture and Environment Project (DICEP), made superior gains and reflected the excellence of the program.

H. The Teacher Corps team strengthened the educational opportunities for the children at Walden Middle School.

I. The automated music laboratory provided by Title I, among other things, made language more relevant through a comprehensive linkage with music instruction, exerting an indirect but a reinforcing and positive influence on language arts and other academic skills.

XVI. RECOMMENDATIONS

The following recommendations are based upon the content of this report and upon discussions between the school faculty and the research assistant:

A. Although all objectives were not met, the fact that this was the first year of operation for Walden Middle School (with the problems of a new school) should be considered.

B. For the school year 1972-73, realistic goals and objectives should be set.

C. Definite reading and mathematics improvement programs should be designed, implemented, and vigorously pursued for several years until definite benefits can be determined.

D. Since instruction with multi-media packets proved highly successful at Walden Middle School, the curriculum and techniques should be considered to be used throughout the school.

E. The Teacher Corps team should continue to strengthen the educational opportunities for children while availing themselves to the school.

F. Since the Title I music activity proved beneficial to pupils, the activity should be continued.

G. The pupils should be given more product-oriented opportunities for learning about careers as provided in the Program for Education and Career Exploration (PECE). This behavioral approach would promise more observable or measurable results.

H. Specific, analytical, and realistic attention should be given by the local staff to the manner in which an excessively expensive program can be more productive. Consideration should be given to eliminating some of the many activities, to concentrating efforts and funds on a few well selected behavioral objectives, and to obtaining a positive and significant correlation between pupil performance and expenditures.

I. The staff should continue to analyze its program objectives in terms of objectives established or recognized as being appropriate for middle school programs. Such an analysis should result in clear delineation of objectives with priorities established to serve as guides for use of manpower and funds.

Again the faculty and other staff are to be commended for the manner in which they coped with the many problems associated with the opening and organization of a middle school. Recognition is given to the open-space physical environment of the school with which most of the pupils were totally unaccustomed and which would naturally complicate operations during the initial year.